

## REMARKS

Claims 23-32 were examined. All claims were rejected. In response to the above-identified Office Action, Applicants do not amend or cancel any claims, or add any new claims. Reconsideration of the rejected claims in light of the aforementioned amendments and the following remarks is requested.

### **I. Claims Rejected Under 35 U.S.C. § 103(a)**

The Examiner rejected claims 23-32 under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,847,398 issued to Fossum ("*Fossum '398*"), U.S. Patent Application No. 2003/0193597 by Fossum *et al.* ("*Fossum '597*") and U.S. Patent No. 4,709,259 issued to Suzuki ("*Suzuki*"), and further in view of U.S. Patent No. 5,541,645 issued to Davis ("*Davis*"). Upon careful review of the references of record, Applicants believe that they fail to teach or suggest every element of the rejected claims, and request that the Examiner withdraw the current rejections.

Independent claims 23, 27 and 31 recite integrated circuits and systems comprising a number of elements, including first and second reset shift registers having a plurality of outputs, each output being coupled to control a reset of sensor elements in a row of an array. The Examiner argues that these reset shift registers are disclosed in *Fossum '398* as shutter A, 150, and shutter B, 152, both shown in Fig. 1A. These shutters are not shift registers, though they may (as the Examiner notes) *act* like a shift register. However, the difference is material to the interpretation of Applicants' claims: each of independent claims 23, 27 and 31 requires that reset bits (or signals) *shift through their respective registers*. *Fossum '398*, by contrast, produces a new reset bit at an output 2200 of the shutter logic, based on five signals (apparently) from control logic 160: GLOBAL\_RST\_SET 2206, GLOBAL\_RST\_CLR 2218, RST\_SET 2202, RST\_CLR 2214 and DECODER\_OUTPUT 2104. The state of signal RST to a row X thus depends on

several signals, but none of the signals are related to the state of signal RST for a neighboring row  $X \pm 1$ . Therefore, the reset bit cannot be said to shift through the register, as every independent claim requires.

*Fossum '597* also lacks a shift register, and is only relied upon for its alleged teaching of correlated double sampling ("CDS") for noise suppression. Similarly, *Davis* is relied upon for its alleged support of the proposition that simultaneous reset and staggered readout (as used in *Suzuki*) is equivalent to staggered reset and simultaneous readout, and not for any teaching or suggestion of using a shift register as Applicants claim.

Applicants recognize that *Suzuki* does use shift registers to generate some of its control signals, but as was argued in a prior Response to Office Action, neither *Suzuki* nor any of the other current references, and none of the previously-relied-upon references, pass *two* reset bits through a shift register so that image integration occurs between the two bits, and the second reset bit generates a correlated double sampling pixel reset value.

For at least the foregoing reasons, Applicants respectfully submit that claims 23, 27 and 31 are patentable over the references of record, even assuming (solely for the sake of argument) that the references properly may be combined. The Examiner is requested to withdraw these rejections.

Regarding claims 24-26, 28-30 and 32, those claims depend directly or indirectly from one of claims 23, 27 or 31, and are patentable for at least the reasons discussed above. Applicants respectfully request that the rejections of these claims be withdrawn as well.

**CONCLUSION**

In view of the foregoing, it is believed that all claims now pending, namely claims 23-32, patentably define the subject invention over the prior art of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes that a telephone conference would be useful in moving the application forward to allowance, the Examiner is encouraged to contact the undersigned at (310) 207-3800.

Respectfully submitted,  
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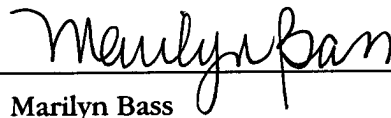
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